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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,547	07/09/2001	Brian C. Barnes	2000.054700	7122
23720	7590	01/07/2005	EXAMINER	
WILLIAMS, MORGAN & AMERSON, P.C.			HA, DAC V	
10333 RICHMOND, SUITE 1100			ART UNIT	
HOUSTON, TX 77042			PAPER NUMBER	
			2634	

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,547

Applicant(s)

BARNES ET AL.

Examiner

Dac V. Ha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/04/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 11-20 should have been renumbered as 9-18, respectively. ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 11, 12, 17, 18, 20** are rejected under 35 U.S.C. 102(e) as being anticipated by Malmgren et al. (US 6,807,154) (hereinafter Malmgren).

Regarding claim 11, Malmgren discloses the claimed subject matter “A modem, comprising a physical layer hardware unit adapted to receive user data over a first communications channel and control codes over a second communications channel, the physical layer hardware unit being further adapted to transmit an upstream data signal over the first communications channel based on transmission assignments defined by

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the control codes" in that communication between base station and mobile terminals includes communication of "channel codes" (i.e., capacity) in an ACH (Announcement & Assignment Channel) and data on channels other than ACH. Further, the physical layer also is adapted to transmit uplink data signal over channels within the assigned capacity (col. 4, lines 9-47).

Regarding claims 17, 20, see claim 11.

Regarding claim 12, Malmgren further discloses the claimed subject matter "wherein the control codes include at least one of a power level assignment, a frequency assignment, and a time slot assignment" in col. 4, lines 35-38.

Regarding claim 18, see claim 11.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-8, 13-16, 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmgren.

Regarding claim 13, even though Malmgren doesn't disclose the claimed subject matter "an analog front end adapted to sample a received signal and generate received signal samples; a downconverter adapted to process the received signal

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samples to generate a carrierless waveform including the user data based on receive assignments defined by the control codes; a demodulator adapted to demodulate the received signal samples to generate the control codes”, such claimed subject matter would have been obvious to one skilled in the art since they are the basis conventional process for receiving signal in communication system.

Regarding claim 14, the claimed subject matter “control logic adapted to receive the control codes and configure the downconverter based on the control codes” would have been realized by one skilled in the art since the receiving side must has capability (i.e. “control logic”) for receiving the communication signal within the assigned capacity.

Regarding claim 15, Malmgren further discloses the claimed subject matter “wherein the control codes include at least one of a power level assignment, a frequency assignment, and a time slot assignment” in col. 4, lines 35-38.

Regarding claim 16, similar analogy with that of claim 13 above, the claimed subject matter “an upconverter adapted to receive upstream data and generate an upstream digital signal, wherein the analog front end unit is further adapted to receive the upstream digital signal and generate the upstream data signal; and control logic adapted to receive the control codes and configure the upconverter based on the transmission assignments defined by the control codes” would have been realized by one skilled in the art.

Regarding claim 19, see claim 13.

Regarding claim 1, Malmgren discloses the claimed subject matter “a physical layer hardware unit adapted to receive user data over a first communications channel

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and control codes over a second communications channel, the physical layer hardware unit being further adapted to transmit an upstream data signal over the first communications channel based on transmission assignments defined by the control codes" in that communication between base station and mobile terminals includes communication of "channel codes" (i.e., capacity) in an ACH (Announcement & Assignment Channel) and data on channels other than ACH. Further, the physical layer also is adapted to transmit uplink data signal over channels within the assigned capacity (col. 4, lines 9-47). Malmgren differs from the claimed invention in that Malmgre doesn't disclose "a processing unit adapted to execute a software driver for interfacing with the physical layer hardware unit, the software driver including program instructions for implementing a protocol layer to decrypt the user data and provide upstream data to the physical layer hardware tmit for generation of the upstream data signal". With the ever growing of the, i.e., wireless communication, the integration of many different system standards, one skilled in the art would have realized that any integration and/or improvement would have been first made compatible with each other. Further, the ability to control, convert and communicate with other standard would have been much easier implemented with software. Therefore, such claimed subject matter in claim 1 would have been obvious to one skilled in the art based on Malmgren.

Regarding claims 2-6, see claims 12-16 above, respectively.

Regarding claims 7-8, these claimed subject matter would have been obvious to one skilled in the art as optional.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Manning et al. (US 6,519,266) disclose Layering Of Wireless Packet Data Service.

Kronestedt et al. (US 6,310,866) disclose Medium Access Control Protocol With Automatic Frequency Assignment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-273-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Dac V. Ha", with a long horizontal flourish extending to the right.

Dac V. Ha
Examiner
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